

Claim 1 (Currently Amended): A fluid control apparatus comprising a plurality of lines, each line having a fluid controller, an inlet on-off device and an outlet on-off device arranged respectively at an inlet side and an outlet side of each of the fluid controllers, each of the on-off devices on the respective sides of the fluid controllers comprising ~~one valve or~~ a plurality of adjacent valves, with ~~the one valve or~~ the adjacent valves interconnecting each other and with the fluid controllers without using tubing,

each of the on-off devices being of the type selected from the group including a 2 -type on-off device having a two-port valve, a 2-3-type on-off device having a two-port valve and a three-port valve, a 2-3-3 -type on-off device having a two-port valve and two three-port valves, a 3-3-type on-off device having two three-port valves, and a 3-3-3-type on-off device having three three-port valves,

main bodies of two-port valves of all types of on-off devices being identical in configuration and each having an inlet port and an outlet port in a bottom face thereof, and main bodies of three-port valves of all types of on-off devices being identical in configuration and each being formed in a bottom face thereof with an inlet port, an outlet port always in communication with the inlet port, and an inlet-outlet subopening having a port separate from said inlet port and said outlet port;

each port of said two-port valves and said three-port valves being arranged in a row disposed in a common plane along said each line; and

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valve mounts mounting said valve main bodies and said fluid controllers including a plurality of joint members separate from said valve main bodies and said fluid controllers having upper surfaces disposed in substantial coplanar relation, said valve mounts each including at least one rectangular parallelepipedal communication channel member having a V-shaped channel for holding the adjacent inlet port and outlet port of adjacent valves or fluid controller in communication, said joint members each containing passages extending entirely internally within the associated joint member and opening in the upper surface thereof to communicate with ports in the bottom faces of said valves and fluid controllers and operatively interconnect said valves and said fluid controllers in selected fluid flow relation.